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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,308	05/25/2001	Naoki Kuwata	209108US-2	2806

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EXAMINER	
EISEN, ALEXANDER	
ART UNIT	**PAPER NUMBER**
2674	

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/864,308	KUWATA ET AL.	
	Examiner	Art Unit	
	Alexander Eisen	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23 and 25-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-20,25-27 and 30-32* is/are allowed.

6)☒ Claim(s) *21-23,28,29 and 33-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 29 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by DeLeeuw, US 5,673,065.

DeLeeuw discloses an image processing method (FIGS. 2-4; the method can be recorded on a recording medium as a software program – col. 3, ll. 5-12) that carries out predetermined image processing of image data, which are to be displayed on an image display apparatus, and thereby generates supplied data to the image display apparatus, the image processing method comprising the steps of storing in advance a relationship between tone values before and after tone correction in nearest color map 49, which is set based on a display characteristic of the image display apparatus, carrying out tone correction of the image data, based on the stored relationship; and carrying out color reduction to convert tones of the corrected image data into tones expressible by the image display apparatus (col. 2, lines 16-61).

As to claim 34 , the method can be implemented in a computer program and recorded on recording medium (see DeLeeuw; col. 4, ll. 30-47).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 21, 22, 23, 28, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto, JP 06-006733 in view of DeLeeuw.

With respect to claims 21, 22, 28, 33, 34 and 35 Sakamoto discloses an image processing apparatus that carries out preset tone correction of image data, which are to be displayed on an image display apparatus, the image display apparatus giving output lightness that varies stepwise against display tone value, the image processing apparatus comprising a first storage (plurality of storage means 26-31) unit that stores a plurality of characteristic curves (gamma) corresponding to a plurality of settings for a predetermined parameter (temperature), each characteristic curve representing a relationship between the tone value of the image data and the lightness; a second storage unit 25 that stores therein a preset characteristic curve that represents a desired relationship between the tone value and the lightness; a data generation unit (switch 32 and adder 33) that receives an input of the predetermined parameter, selects a characteristic curve among the plurality of characteristic curves according to the input of the predetermined parameter, and generates data that represents a mapping of tone values of input image data and corrected tone values, based on the selected characteristic curve and the preset characteristic curve, so as to compensate for a difference between the selected characteristic curve and the preset characteristic curve.

Sakamoto does not discloses that the image display apparatus has a less number of expressible display tones with regard to each pixel than a number of tones included in the image

data and ; and an image data correction unit that corrects tone values of the input image data by referring to the generated data.

DeLeeuw teaches a color signal reduction system applied to an image display apparatus that has a less number (256) of expressible display tones with regard to each pixel than a number of tones (4096) included in the image data and an image data correction unit 49 that corrects tone values of the input image data by referring to the generated data.

It would have been obvious to one of ordinary skill in the art at the time when the invention was made to use the color reduction system taught by DeLeeuw in the display apparatus of Sakamoto, because it would allow to display higher resolution image data on the lower resolution display device (DeLeeuw; col. 2, ll. 35-52).

As to claim 23, DeLeeuw teaches dithering process, half toning LSB bits (col. 3, ll. 30-55).

As to claim 33 , it is understood that both references involve computer generated look-up tables for correcting video signals and as such can be implemented in a computer program and recorded on recording medium (see DeLeeuw; col. 4, ll. 30-47).

Claim 35 is a method claim of device delineated by apparatus claim 21 and therefore is rejected on the same grounds.

Allowable Subject Matter

5. Claims 1-20, 25-27 and 30-32 have been allowed in the previous Office action and reasons for allowance have been conveyed to the applicant therein.

6. The allowance of claims 21, 28, 33 and 34 has been withdrawn in view of newly discovered prior art (see rejection above).

Response to Arguments

7. Applicant's arguments with respect to claims 22-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Endo, US 5,852,430, discloses temperature based correction tables for driving LCD.

Someya et al., US 6,300,931, discloses contrast and brightness adjustment for LCD based on LUT and measured ambient light.

Kaburagi et al., JP 109313418, discloses driving LCD having non-linear display characteristics, which is divided into varying intervals having different enhancement range.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Eisen whose telephone number is (703) 306-2988. The examiner can normally be reached on M-F (8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander Eisen
Primary Examiner
Art Unit 2674

4 January 2005